Glory lily

*Gloriosa superb* linn.

**Family:** Liliaceae

**Distribution:** Glory lily is native of Asia and Africa. It is distributed throughout North and South Africa, India, Sri Lanka, Indonesia and neighboring countries. In India it is much found in North-east and southern states. Nowadays it is under cultivation in the region of Tamilnadu, Andra Pradesh, Goa and Karnataka for its seeds.

**Vernacular Names:**

- Sanskrit – Langalika, Agni sikha, Garbhagatini, kalikari
- Hindi – Kalihari, Languli, Karihari
- English – Superb lily, Glory lily
- Kannada – Agnisile, Akkatangi balli, Kolikatumkana gadde, Gowri huvu
- Telugu – Adavinabhi, Kalapa gadda, pottidumpa
- Tamil – kalaipaikizhangu, kartikkai-kizhangu
- Malayalam – Ventoni, Kandal, Manthori-kizhangu
- Gujarati – Khadyang

**Varieties:**

**Agro-climatic requirements:**

Super lily is a perennial vine crop which remains in the field for several years. It is well adapted to different soil type and climatic variations from arid to humid valley. It grows luxuriantly in warm weather with a rainfall of 200cm distributed evenly throughout the year. High temperature and high relative humidity in temperature from 15-20° during the day and 10 -15° at night is ideal for copious flowering and seed set. Medium sandy loam soil having pH of 6 – 7 is better suited for its cultivation.

**Cultivation:** The plants can be raised both from seeds and tubers. Treatment of the seeds with thiourea (0.3 – 0.4%) gives the maximum germination (67.5%) and maximum rate of germination. The seed propagated plants take 3-4 years to bloom. Hence, propagation through tubers is preferable. The land prepared by ploughed and harrowed to a fine tilth. The leveled field is then divided in to small plots, providing slope for drainage. The tubers are brittle; hence
their ends must be protected from damage. Fungicide treated apical pieces (50-60g) of tuber planted at 6 cm depth in furrows 45 – 60 cm apart. The row to row distance should be maintained at 30-45 cm. The vigour of the growing vine depends upon the tuber weight. Closer spacing helps cross-fertilisation leading to improved fruit set.

**Intercultural and pruning:** Since it is a tall climber, the plants should be trained over stakes or wire frames to get more fruits. The vines need copious irrigation during dry weather in the initial stages of growth, and up to 3 irrigations in a month afterwards. The crop soil moisture may cause rotting of the tubers. It also needs 2-3 weeding.

**Manure and fertilizers:** About 15 – 20 tones of farmyard manure or compost are mixed while preparing the land. A dose of 40kg N, 50kg P2O5 and 75kg K2O per hectare should be applied at the time of planting and 80 kg N as top dressing 8 weeks after planting. The top dressing should coincide with fixing stakes for the growing vines.

**Plant protection:** leaf blight and tuber soft rot are two important fungal diseases of the plant. Spraying Dithane M-45 (0.3%) thrice an interval of 10 – 15 days effectively controls the disease. Drenching of soil at root zone with Bavistin(0.2%) or cuprosol are effective in the initial stages of the diseases. removing and burning of infected tubers prevents spreading.

Lily caterpillar and green caterpillar attacks foliage and buds. Spraying Metacid (0.2%) at fortnightly interval and dusting BHC are recommended for the control of pest.

**Harvesting and yield:** The pods are picked manually and dried in shade for 7 – 10 days. The seeds are dried in shade for week and then sun dried for another week.

One hectare plantation yields about 150 kg seeds in the first year and 250-300 kg seeds from second year onwards. Seeds are packed in moisture proof containers and stored in cool and dry place.

Cost of Cultivation: Approximate cost of cultivation comes around Rs.2,67,500/- per hectare.

**Inputs:**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Materials</th>
<th>Per acre</th>
<th>Per hectare</th>
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<tbody>
<tr>
<td>1</td>
<td>Tubers (t)</td>
<td>1</td>
<td>2.5</td>
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<tr>
<td>2</td>
<td>Farm Yard Manure (t)</td>
<td>6</td>
<td>15</td>
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<td>3</td>
<td>Fertilizer (kg)</td>
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<tr>
<td></td>
<td>N</td>
<td>50</td>
<td>125</td>
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<tr>
<td></td>
<td>P2O5</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>K2O</td>
<td>30</td>
<td>75</td>
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Parts used: Tuberous roots

Medicinal uses:

Tuberous root is a tonic, anti-periodic, cholangogue, alterative, abortifacient, anthelmintic and purgative. The tuberous root is one among 8 upa visha’s mentioned in Ayurveda. A paste of the tuber formed with water is used as an anodyne application in bites of poisonous insects, snake bite, scorpion sting, parasitic skin diseases and leprosy. Root in thin slices are soaked in salted buttermilk for 4-5 days and dried for 4-5 days is said to be freed from its poisonous properties. The white powder obtained by repeated washing and grinding is given in gonorrhea up to 12 grains mixed with honey. The root paste when applied on suprapubic region and navel promotes labour pains. Root grinded with Citraka bark in cow’s urine it is applied to painful piles. The leaves paste applied over head controls lies infestation. The seeds are used in the preparation of drug for gout.